PART III UNIT-SPECIFIC CONDITIONS FOR FINAL STATUS OPERATIONS

OPERATING UNIT 11

Integrated Disposal Facility

Chapter 1.0 Part A

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1.0 PART A INTRODUCTION

Revision 0, of the Part A, Form 3, included with this permit application, constitutes the initial submittal to the Washington State Department of Ecology (Ecology). The Notice of Intent (NOI), associated with this unit, was filed with Ecology in November 2001.

Revision 1, of the Part A, Form 3, was updated to submit with the Revision 1, of the Part B permit application. The Part B permit application was submitted February 2004.

Revision 2, of the Part A Form was updated to the new Ecology Part A application format effective January 1 2005, and to reflect the decision to limit the acceptable IDF mixed waste streams. Revision 2 was submitted February 2005.

Revision 3, of the Part A Form was updated to clarify the total combined ILAW and Bulk Vitrification waste volumes to be accepted at IDF. Revision 3 was submitted March 2005

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WASHINGTON STATE DEPARTMENT OF ECOLOGY

Dangerous Waste Permit Application Part A Form

Date Received	Reviewed by:	Date:
Month Day Year	Approved by:	Date:

Please refer to instructions for completing this form.

I. This form is submitted to: (place an "X" in the appropriate box)

☐	**Request modification to a final status permit (commonly called a "Part B" permit)**
☐	**Request a change under interim status**
☒	**Apply for a final status permit. This includes the application for the initial final status permit for a site or for a permit renewal (i.e., a new permit to replace an expiring permit).**
☐	**Establish interim status because of the wastes newly regulated on:** (Date)
	List waste codes:

II. EPA/State ID Number

W	**A**	7	8	9	0	0	0	8	9	6	7

III. Name of Facility

US Department of Energy – Hanford Facility

IV. Facility Location (Physical address not P.O. Box or Route Number)

A. Street

825 Jadwin

City or Town	State	ZIP Code
Richland	WA	99352

County Code (if known)	County Name
005	Benton

B. Land Type	C. Geographic Location: Latitude (degrees, mins, secs)	Longitude (degrees, mins, secs)	D. Facility Existence Date: Month Day Year
F	SEE TOPO	MAP	03 02 1943

V. Facility Mailing Address

Street or P.O. Box

P.O. Box 550

City or Town	State	ZIP Code
Richland	WA	99352

VI. Facility contact (Person to be contacted regarding waste activities at facility)		
Name (last)	**(first)**	
Schepens	Roy	
Job Title	**Phone Number (area code and number)**	
Manager	(509) 376-6677	
Contact Address		
Street or P.O. Box		
P.O. Box 450		
City or Town	**State**	**ZIP Code**
Richland	WA	99352

VII. Facility Operator Information			
A. Name	**Phone Number (area code and number)**		
Department of Energy * Owner/Operator CH2MHill Hanford Group, Inc.** Co-Operator for Integrated Disposal Facility	(509) 376-6677* / (509) 376-7395* (509) 373-1677 **		
Street or P.O. Box			
P.O. Box 450 * P.O. Box 1500 **			
City or Town	**State**	**ZIP Code**	
Richland	WA	99352	
B. Operator Type F			
C. Does the name in VII.A reflect a proposed change in operator? ☐ Yes ☒ No **If yes, provide the scheduled date for the change:**	**Month**	**Day**	**Year**
D. Is the name listed in VII.A. also the owner? If yes, skip to Section VIII.C. ☐ Yes ☒ No			

VIII. Facility Owner Information			
A. Name	**Phone Number (area code and number)**		
Keith A. Klein, Operator/Facility-Property Owner Roy J. Schepens, Operator/Facility-Property Owner*	(509) 376-7395 / (509) 376-6677*		
Street or P.O. Box			
P.O. Box 550			
City or Town	**State**	**ZIP Code**	
Richland	WA	99352	
B. Operator Type F			
C. Does the name in VII.A reflect a proposed change in operator? ☐ Yes ☒ No **If yes, provide the scheduled date for the change:**	**Month**	**Day**	**Year**

IX. NAICS Codes (5/6 digit codes)													
A. First							**B. Second**						
5	6	2	2	1		Waste Treatment & Disposal	9	2	4	1	1		Administration of Air & Water Resource & Solid Waste Management Programs
C. Third							**D. Fourth**						

5	4	1	7	1		Research & Development in the Physical, Engineering, & Life Sciences	9	9	9	9	9	9	Unclassified Establishments

X. Other Environmental Permits (see instructions)

A. Permit Type			B. Permit Number											C. Description
	E													Non-Rad NOC for operation (in development)
	E													Rad NOC for operation (in development)
	E		M	B	L	-	6	0	1	3	1	9	2	3	Master Business License
	E														
	E														
	E														
	E														

XI. Nature of Business (provide a brief description that includes both dangerous waste and non-dangerous waste areas and activities)

Mixed waste disposed at the IDF will be limited to vitrified low-activity waste (LAW) from the RPP-WTP and Demonstration Bulk Vitrification System (DBVS). Additionally, mixed waste generated by IDF operations will be disposed of in IDF. Vitrified LAW generated by RPP-WTP is known as Immobilized Low Activity Waste (ILAW) and generated by DBVS is known as Bulk Vitrified Waste (BVW). The "Amount" shown in Section XII of 8.2 hectare meters (82,000 cubic meters) is the waste capactiy of the initial construction. The "Amount" will be revised as required for future expansion to accommodate the entire waste volume through an approved permit modification.

D80

For the ILAW and BVW that will be in steel canisters or boxes, the characteristic dangerous waste numbers D002, and D004 through D011 that are associated with waste stored in the Double-Shell and Single-Shell Tank System, are listed but anticipated to be treated by the specified technology based treatment standard for high-level radioactive waste as described in 40 Code of Federal Regulations (CFR) 268.40 (vitrification). Tank waste will meet this standard as the waste exits at the Waste Treatment Plant or Demonstration Bulk Vitrification System process. All the dangerous waste numbers are associated with the mixed waste that will be disposed within the Integrated Disposal Facility.

IDF operational activities (including decontamination, cleanup and maintenance) will generate a small amount of waste. Waste that can meet IDF waste acceptance without treatment will be buried at the IDF. All other IDF operational waste will be managed pursuant to WAC 173-303-200 and either sent to a 90 day accumulation area or directly to another permitted TSD for treatment. Treated IDF operational waste will either be buried at IDF or sent to another permitted Hanford TSD for final disposition.

S01

Process Code S01 (container storage) has been included within this Part A, Form in the event that storage is required before final disposal (e.g., to support the staging and confirmation process of the waste or cooling of vitrified waste if required).

EXAMPLE FOR COMPLETING ITEMS XII and XIII (shown in lines numbered X-1, X-2, and X-3 below): A facility has two storage tanks that hold 1200 gallons and 400 gallons respectively. There is also treatment in tanks at 20 gallons/hr. Finally, a one-quarter acre area that is two meters deep will undergo *in situ vitrification.*

Section XII. Process Codes and Design Capacities								Section XIII. Other Process Codes							
Line Number		A. Process Codes (enter code)			B. Process Design Capacity 1. Amount	B. Process Design Capacity 2. Unit of Measure (enter code)	C. Process Total Number of Units	Line Number		A. Process Codes (enter code)			B Process Design Capacity 1. Amount	B Process Design Capacity 2. Unit of Measure (enter code)	C. Process Total Number of Units	D. Process Description
X	1	S	0	2	1,600	G	002	X	1	T	0	4	700	C	001	In situ vitrification
X	2	T	0	3	20	E	001									
X	3	T	0	4	700	C	001									
	1	D	8	0	8.2	F	1		1							
	2	S	0	1	*	*	1		2							
	3								3							
	4								4							
	5								5							
	6								6							
	7								7							
	8								8							
	9								9							
1	0							1	0							
1	1							1	1							
1	2							1	2							
1	3							1	3							
1	4							1	4							
1	5							1	5							
1	6							1	6							
1	7							1	7							
1	8							1	8							
1	9							1	9							
2	0							2	0							
2	1							2	1							
2	2							2	2							
2	3							2	3							
2	4							2	4							
2	5							2	5							

XIV. Description of Dangerous Wastes

Example for completing this section: A facility will receive three non-listed wastes, then store and treat them on-site. Two wastes are corrosive only, with the facility receiving and storing the wastes in containers. There will be about 200 pounds per year of each of these two wastes, which will be neutralized in a tank. The other waste is corrosive and ignitable and will be neutralized then blended into hazardous waste fuel. There will be about 100 pounds per year of that waste, which will be received in bulk and put into tanks.

Line Number	A. Dangerous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes	
				(1) Process Codes (enter)	(2) Process Description [If a code is not entered in D (1)]
X 1	D 0 0 2	400	P	S 0 1 T 0 1	
X 2	D 0 0 1	100	P	S 0 2 T 0 1	
X 3	D 0 0 2				Included with above
1	D 0 0 1	20,000,000	K	D 8 0	Disposal
2	D 0 0 2		K	D 8 0	Disposal
3	D 0 0 3		K	D 8 0	Disposal
4	D 0 0 4		K	D 8 0	Disposal
5	D 0 0 5		K	D 8 0	Disposal
6	D 0 0 6		K	D 8 0	Disposal
7	D 0 0 7		K	D 8 0	Disposal
8	D 0 0 8		K	D 8 0	Disposal
9	D 0 0 9		K	D 8 0	Disposal
10	D 0 1 0		K	D 8 0	Disposal
11	D 0 1 1		K	D 8 0	Disposal
12	D 0 1 8		K	D 8 0	Disposal
13	D 0 1 9		K	D 8 0	Disposal
14	D 0 2 2		K	D 8 0	Disposal
15	D 0 2 8		K	D 8 0	Disposal
16	D 0 2 9		K	D 8 0	Disposal
17	D 0 3 0		K	D 8 0	Disposal
18	D 0 3 3		K	D 8 0	Disposal
19	D 0 3 4		K	D 8 0	Disposal
20	D 0 3 5		K	D 8 0	Disposal
21	D 0 3 6		K	D 8 0	Disposal
22	D 0 3 8		K	D 8 0	Disposal
23	D 0 3 9		K	D 8 0	Disposal
24	D 0 4 0		K	D 8 0	Disposal
25	D 0 4 1		K	D 8 0	Disposal

EPA/State ID Number	W	A	7	8	9	0	0	0	8	9	6	7

Continuation of Section XIV. Description of Dangerous Waste

Line Number	A. Dangerous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Process	
				(1) Process Codes (enter)	(2) Process Description [If a code is not entered in D (1)]
26	D043		K	D80	Disposal
27	WT01		K	D80	Disposal
28	WT02		K	D80	Disposal
29	WP01		K	D80	Disposal
30	WP02		K	D80	Disposal
31	F001		K	D80	Disposal
32	F002		K	D80	Disposal
33	F003		K	D80	Disposal
34	F004		K	D80	Disposal
35	F005		K	D80	Disposal
36	F039		K	D80	Disposal
37	D001	600,000	K	S01*	Container Storage
38	D002		K	S01*	Container Storage
39	D003		K	S01*	Container Storage
40	D004		K	S01*	Container Storage
41	D005		K	S01*	Container Storage
42	D006		K	S01*	Container Storage
43	D007		K	S01*	Container Storage
44	D008		K	S01*	Container Storage
45	D009		K	S01*	Container Storage
46	D010		K	S01*	Container Storage
47	D011		K	S01*	Container Storage
48	D018		K	S01*	Container Storage
49	D019		K	S01*	Container Storage
50	D022		K	S01*	Container Storage
51	D028		K	S01*	Container Storage
52	D029		K	S01*	Container Storage
53	D030		K	S01*	Container Storage
54	D033		K	S01*	Container Storage
55	D034		K	S01*	Container Storage
56	D035		K	S01*	Container Storage
57	D036		K	S01*	Container Storage
58	D038		K	S01*	Container Storage
59	D039		K	S01*	Container Storage

EPA/State ID Number	W	A	7	8	9	0	0	0	8	9	6	7

Continuation of Section XIV. Description of Dangerous Waste

Line Number	A. Dangerous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Process	
				(1) Process Codes (enter)	(2) Process Description [If a code is not entered in D (1)]
60	D040		K	S01*	Container Storage
61	D041		K	S01*	Container Storage
62	D043		K	S01*	Container Storage
63	WT01		K	S01*	Container Storage
64	WT02		K	S01*	Container Storage
65	WP01		K	S01*	Container Storage
66	WP02		K	S01*	Container Storage
67	F001		K	S01*	Container Storage
68	F002		K	S01*	Container Storage
69	F003		K	S01*	Container Storage
70	F004		K	S01*	Container Storage
71	F005		K	S01*	Container Storage
72	F039		K	S01*	Container Storage
73					
74					
75					
76					
77					
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XV. Map

Attach to this application a topographic map of the area extending to at least one (1) mile beyond property boundaries. The map must show the outline of the facility; the location of each of its existing and proposed intake and discharge structures; each of its dangerous waste treatment, storage, recycling, or disposal units; and each well where fluids are injected underground. Include all springs, rivers, and other surface water bodies in this map area, plus drinking water wells listed in public records or otherwise known to the applicant within ¼ mile of the facility property boundary. The instructions provide additional information on meeting these requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (refer to Instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, recycling, and disposal areas; and sites of future storage, treatment, recycling, or disposal areas (refer to Instructions for more detail).

XVIII. Certifications

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator* Name and Official Title (type or print) Roy J. Schepens, Manager U.S. Department of Energy Office of River Protection	**Signature**	**Date Signed**
Co-Operator** Name and Official Title (type or print) Edward S. Aromi President and Chief Executive Officer CH2MHill Hanford Group, Inc.	**Signature**	**Date Signed**
Co-Operator – Address and Telephone Number 2440 Stevens Center P.O. Box 1500 Richland, WA 99352 (509) 373-1677		
Facility-Property Owner* Name and Official Title (type or print) Keith A. Klein, Manager U.S. Department of Energy Richland Operations Office	**Signature**	**Date Signed**

Comments

This section has been identified as
"Official Use Only" (OUO)
and is available to view by appointment at the
Nuclear Waste Program Resource Center
3100 Port of Benton Blvd.
Richland, Washington

Please contact Valarie Peery at
(509) 372-7920
for a viewing appointment.

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